UNITED STATES PATENT AND TRADEMARK OFFICE

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FISH & RICHARDSON, P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER
COUGHLAN, PETER D

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/624,860
Filing Date: July 21, 2003
Appellant(s): CHAN ET AL.

Mr. Thomas H. Reger (Reg. No. 47892)
<u>For Appellant</u>

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/28/2008 appealing from the Office action

mailed 3/26/2008.

(1) Real Party in Interest

SAP AKTIENGESELLSCHAFT is the real party in interest in the above
reference patent application.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial
proceedings which will directly affect or be directly affected by or have a bearing on the
Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection
contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct
concerning claims 1, 25 and 29.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is
correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

-'UML Distilled: A Brief Guide to the Standard Object Modeling Language, 2nd

edition'   Fowler   1999

    -U. S. Patent Publication 20020174005 Chappel   2002

    -U. S. Patent 6339832   Bowman   2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim rejections – 35 USC §112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3, 7, 15, 20, 21, 25, 28, 29, 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no definitive explanation of what is meant by 'technology objects.'

Under section 2164.01(a) of the MPEP 7 areas need to be addressed for a test of enablement.

(A) The breadth of the claims. The independent claims pertain to finding a solution. This fails to limit how the 'technology objects' are to be employed. A few examples of 'finding a solution' can be used for manufacturing processes or solving abstract problems such as an algorithm for solving N-P complete problems.

(B) The nature of the invention. There is no nature of the invention (see 35 U.S.C. §101 rejection) which connects 'finding a solution' to 'technology objects.'

(C) The state of the prior art. The prior art of modeling language also suggests that 'technology objects' is a concept as well such as 'classes' with object oriented programming.

(D) The level of one of ordinary skill. The phrase 'technology objects' can have numerous possibilities. In paragraph 0043, Fig. 22 'shows how a graphical assignment of business steps to a technology object may work.' There is still no explanation what is a 'technology object.'

(E) The level of predictability in the art. Since there is no specific domain in which the invention can be employed, there exists no specific level of predictability in the art which could aid the Examiner.

(F) The amount of direction provided by the inventor. Per paragraph 0050, Fig. 29A is a 'technology object template.' Per paragraph 0043, Fig 22 'shows how a graphical assignment of business steps to a technology object may work.' These two figures are identical. Is a 'technology object a 'portal server?' There is no clear direction provided by the inventor.

(G) The existence of working examples. These exists no working examples

within the specification which clarifies how 'technology objects' are to be employed.

(H) The quantity of experimentation needed to make or use the invention based

on the content of the disclosure. Since there are numerous applications in which the

invention could be used the amount of experimentation would be enormous.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

These claims and/or specification must be amended or the claims must be

withdrawn from consideration.

35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine,
manufacture, or composition of matter, or any new and useful improvement
thereof, may obtain a patent therefor, subject to the conditions and requirements
of this title.

Claims 1-3, 5-31 are rejected under 35 U.S.C. 101 for nonstatutory subject

matter. The computer system must set forth a practical application of that § 101 judicial

exceptions to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at

676-77. The invention is ineligible because it has not been limited to a substantial

practical application. Although the claims and the specification recite a business

solution management system, both are silent concerning a practical application of said

business solution management system. The result has to be a practical application.

Additionally the application is claiming preemption due to known and unknown uses.

Per paragraph 0003, the invention 'may involve technology such as a computer system

and software.' Meaning it 'may' something else. Additionally, the invention 'addresses

internal and external business issues.' 'External business issues' pertain to anything

outside a 'business issue' domain.

The courts have also held that a claim may not preempt ideas, laws of nature or natural

phenomena. The concern over preemption was expressed as early as 1852. See Le

Roy v. Tatham, 55 U.S. (14 How.) 156, 175 (1852) ("A principle, in the abstract, is a

fundamental truth; an original cause; a motive; these cannot be patented, as no one can

claim in either of them an exclusive right."); Funk Bros. Seed Co. v. Kalo Inoculant Co.,

333 U.S. 127, 132, 76 USPQ 280, 282 (1948).

Accordingly, one may not patent every "substantial practical application" of an

idea, law of nature or natural phenomena because such a patent "in practical effect

would be a patent on the [idea, law of nature or natural phenomena] itself." "Here the

"process" claim is so abstract and sweeping as to cover both known and unknown uses

of the BCD to pure-binary conversion. The end use may (1) vary from the operation of a

train to verification of drivers' licenses to researching the law books for precedents and

(2) be performed through any existing machinery or future-devised machinery or without

any apparatus." Gottschalk v. Benson, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

The Courts have found that subject matter that is not a practical application or

use of an idea, a law of nature or a natural phenomenon is not patentable. As the

Supreme Court has made clear, " [a]n idea of itself is not patentable," *Rubber-Tip*

Pencil Co. v. Howard, 20 U.S. (1 Wall.) 498, 507 (1874); taking several abstract ideas

and manipulating them together adds nothing to the basic equation. In re Warmerdam,

31 USPQ2d 1754 (Fed. Cir. 1994).

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the <u>final result</u> achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. There are no specified topics in which the business solution management system can be employed. There is no specified field within a topic in which the business solution management system can be employed. Examples of a topic which the claims or specification is silent are, mining operations, retail sales, healthcare. Examples of a field within the topic in which the claims or specification is silent are, human resources, inventory, or profit margin.

The invention must be for a practical application and either:

1) specify transforming (physical thing) or

2) have the FINAL RESULT (not the steps) achieve or produce a

useful (specific, substantial, AND credible),

concrete (substantially repeatable/ non-unpredictable), AND

tangible (real world/ non-abstract) result.

However, the portions of the opinions in State Street and AT&T relying <u>solely</u> on a "useful, concrete and tangible" result analysis *should no longer be relied on*. Ex parte Bilski, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008.

The court has said that there's a two-pronged test to determine whether a software of business method process patent is valid: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. In

other words, pure software or business method patents that are neither tied to a specific

machine nor change something into a different state are not patentable. Ex parte Bilski,

Appeal No. 2007-1130 (Fed. Cir. October 30, 2008).

A claim that is so broad that it reads on both statutory and non-statutory subject

matter, must be amended.

The 'business solution management system' is nothing more than an exercise

without a practical application. There must be a result, output or use that is a practical

application. Additionally there is the issue of preemption due to known and unknown

uses for the invention. 'External business issues' can be anything outside an 'internal

business issue' domain.

> [In Abele], we held unpatentable a broad independent claim reciting a
> process of graphically displaying variances of data from average values.
> *Abele,* 684 F.2d at 909. **That claim did not specify any particular type
> or nature of data; nor did it specify how or from where the data was
> obtained or what the data represented.** *Id.*; ... In contrast, we held one
> of Abele's dependent claims to be drawn to patent-eligible subject matter
> where it specified that "said data is X-ray attenuation data produced in a
> two dimensional field by a computed tomography scanner." *Abele,* 684
> F.2d at 908-09. This data clearly represented physical and tangible
> objects, namely the structure of bones, organs, and other body tissues.
> Thus, the transformation of that raw data into a particular visual depiction
> of a physical object on a display was sufficient to render that more
> narrowly-claimed process patent-eligible.
>
> ... So long as the claimed process is limited to a practical
> application of a fundamental principle to transform **specific** data, and the
> claim is limited to a **visual depiction that represents specific physical
> objects or substances**, there is no danger that the scope of the claim
> would wholly pre-empt all uses of the principle.
>
> This court and our predecessor court have frequently stated that adding a

data-gathering step to an algorithm is insufficient to convert that algorithm into a patent-

eligible process. *E.g., Grams*, 888 F.2d at 840 (step of "deriv[ing] data for the algorithm

will not render the claim statutory"); *Meyer*, 688 F.2d at 794 ("[data-gathering] step[s]

cannot make an otherwise nonstatutory claim statutory"). … **A requirement simply**

that data inputs be gathered—without specifying how—is a meaningless limit on

a claim to an algorithm because every algorithm inherently requires the gathering of

data inputs. *Grams*, 888 F.2d at 839-40. Further, the inherent step of gathering data can

also fairly be characterized as **insignificant extra-solution activity**. *See Flook*, 437

U.S. at 590. (See In re Bilski, 88 USPQ2d 1397-1398, emphasis added).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form
the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year
prior to the date of application for patent in the United States.

Claim 29 is rejected under 35 U.S.C. 102(b) (hereinafter referred to as **Fowler**)

being anticipated by 'UML Distilled: A Brief guide to the standard Object Modeling

Language.'

Claim 29

Fowler teaches prompting a user to select at least one instantiated business

process object and one instantiated technology object; (**Fowler**, #18, #5; One example

of the generation of a 'feature' is the combination of a 'behavioral feature' and a

'structure feature' of Fowler. To add features, the creation of a subtype is needed. Thus

'prompting a user to select...' is the ability to create a 'subtype' of Fowler.) receiving

user parameters(**Fowler,** #5, Figure 1.1, #12:;'User parameters' of applicant is

equivalent to 'parameter' of Fowler.); designing a business solution using the selected

business process object, technology object, and user parameters(**Fowler,** #5, Figure

1.1, #12; 'Predefined business objects' of applicant is equivalent to the 'behavioral

feature' of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of

Fowler.); maintaining and modifying the business solution subsequent to

implementation of the business solution, the implementation based, at least in Dart, on

a current state of the business object and the technology object; and (**Fowler,** #8;

'Maintaining' of applicant is equivalent to '...as these objects that are set up and then

left alone...' of Fowler. 'Modifying' of applicant is equivalent to '...they are not modified

often, and when they are, we can create them again.' of Fowler.) persisting the modified

business solution for subsequent presentation through a graphical user interface.

(**Fowler,** #1:21-24 and #4:14-39; A working interface must be able to have a system

that can 'interface with along with protocols and physical media.' 'Graphical user

interface' of applicant is disclosed by a 'the creation of various graphical or text based

documents' of Fowler.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

Claims 1, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fowler as set forth above, in view of Chappel. (U. S. Patent Publication 20020174005,

referred to as **Chappel**)

Claim 1

Fowler teaches software comprising instructions stored in a computer readable

medium (**Fowler, #7**; 'Software' of applicant is equivalent to 'Unified modeling language'

of Fowler.), the software allowing a user to (a) design a business solution with user

parameters, instantiated user-selectable, pre-defined business objects, and

instantiated user-selectable, pre-defined technology objects (**Fowler, #5**, Figure 1.1,

#12; 'Predefined business objects' of applicant is equivalent to the 'behavioral feature'

of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of Fowler.

"User parameters' of applicant is equivalent to 'parameter' of Fowler.) allowing a user to

maintain and modify the business solution designed by the user subsequent to

implementation of the business solution, the implementation based, at least in part, on a

current state of the business objects and the technology objects (**Fowler,** #8; 'Maintain'

of applicant is equivalent to '...as these objects that are set up and then left alone...' of

Fowler. 'Modify' of applicant is equivalent to '...they are not modified often, and when

they are, we can create them again.' of Fowler.) and; persisting the modified business

solution for subsequent presentation through a graphical user interface. (**Fowler,** #1:21-

24 and #4:14-39; A working interface must be able to have a system that can 'interface

with along with protocols and physical media.' 'Graphical user interface' of applicant is

disclosed by a 'the creation of various graphical or text based documents' of Fowler.)

Fowler does not teach a first data repository comprising the instantiated user-

selectable, pre-defined business objects; and a second data repository comprising the

instantiated user-selectable, pre-defined technology objects.

Chappel teaches a first data repository comprising the instantiated user-

selectable, pre-defined business objects (**Chappel,** ¶0026; 'First data repository' of

applicant is equivalent to 'source database' of Chappel.); and a second data repository

comprising the instantiated user-selectable, pre-defined technology objects. (**Chappel,**

¶0026; 'Second data repository' of applicant is equivalent to 'rules database' of

Chappel.) It would have been obvious to a person having ordinary skill in the art at the

time of applicant's invention to modify the teachings of Fowler by having different

databases to hold different types of information as taught by Chappel to have a first

data repository comprising the instantiated user-selectable, pre-defined business

objects; and a second data repository comprising the instantiated user-selectable, pre-

defined technology objects.

For the purpose of segmenting different types of information to ease updating

needs and lowering replacement cost in case of hardware failure.

Claim 25

Fowler teaches providing at least a first software application and a second

software application, the first software application allowing a user to design a business

solution with user parameters, instantiated user-selectable, pre-defined business

process objects and instantiated user-selectable, pre-defined technology objects

(**Fowler,** #5, Figure 1.1, #12; 'Predefined business objects' of applicant is equivalent to

the 'behavioral feature' of Fowler. 'Predefined technology objects' of applicant is

equivalent to 'Structure feature' of Fowler. "User parameters' of applicant is equivalent

to 'parameter' of Fowler.), and the second software application allowing the user to

maintain and modify the business solution subsequent to implementation of the

business solution, the implementation based, at least in part, on a current state of the

business process objects and the technology objects, at least one of the first or second

software applications persisting the modified business solution for subsequent

presentation through a graphical user interface. (**Fowler,** #8, #1:21-24 and #4:14-39;

'Maintain' of applicant is equivalent to '…as these objects that are set up and then left

alone…' of Fowler. 'Modify' of applicant is equivalent to '…they are not modified often,

and when they are, we can create them again.' of Fowler. #1:21-24 and #4:14-39; A

working interface must be able to have a system that can 'interface with along with

protocols and physical media.' 'Graphical user interface' of applicant is disclosed by a

'the creation of various graphical or text based documents' of Fowler.)

Fowler does not teach providing the instantiated user-selectable, pre-defined

business process objects to a first data repository; and providing the instantiated user-

selectable, pre-defined technology objects to a second data repository.

Chappel teaches providing the instantiated user-selectable, pre-defined

business process objects to a first data repository (**Chappel,** ¶0026; 'First data

repository' of applicant is equivalent to 'source database' of Chappel.); and providing

the instantiated user-selectable, pre-defined technology objects to a second data

repository. (**Chappel,** ¶0026; 'Second data repository' of applicant is equivalent to 'rules

database' of Chappel.) It would have been obvious to a person having ordinary skill in

the art at the time of applicant's invention to modify the teachings of Fowler by having

different databases to hold different types of information as taught by Chappel to have

the instantiated user-selectable, pre-defined business process objects to a first data

repository; and providing the instantiated user-selectable, pre-defined technology

objects to a second data repository.

For the purpose of lowering replacement cost in case of hardware failure and

segmenting different types of information to ease updating requirements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

Claims 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fowler as set forth above, in view of **Bowman**. (U. S. Patent Publication 6339832,

referred to as Bowman)

Claim 30

Fowler does not teach wherein the instructions are operable to cause one or

more machines to organize business process objects, technology objects, and user

parameters in a linked structure.

Bowman teaches wherein the instructions are operable to cause one or more

machines to organize business process objects, technology objects, and user

parameters in a linked structure. (**Bowman**, C9:4-7; 'Linked structure' of applicant is

equivalent to 'network' of Bowman.) It would have been obvious to a person having

ordinary skill in the art at the time of applicant's invention to modify the teachings of

Fowler by having an organizing structure as taught by Bowman to have the instructions

are operable to cause one or more machines to organize business process objects,

technology objects, and user parameters in a linked structure.

For the purpose of the invention to have some organized structure so finding

necessary information can be achieved in reasonable time.

Claim 31

Fowler does not teach wherein the instructions are operable to cause one or

more machines to provide solution templates.

Bowman teaches wherein the instructions are operable to cause one or more

machines to provide solution templates. (**Bowman,** C15:9-32) It would have been

obvious to a person having ordinary skill in the art at the time of applicant's invention to

modify the teachings of Fowler by having the ability to provide information to the user as

taught by Bowman to have wherein the instructions are operable to cause one or more

machines to provide solution templates.

For the purpose of the user being able to access the information and provide it to

the user for future needs as required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

Claims 2, 3, 5-24, 26-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of **Fowler** and **Chappel** as set forth above, in view

of Bowman. (U. S. Patent Publication 6339832, referred to as **Bowman**)

Claim 2

Fowler and Chappel do not teach a portal layer, a software application layer a

data repository.

Bowman teaches a portal layer, (**Bowman,** C31:57 through C32:5; 'Portal layer'

of applicant is equivalent to 'communication services' and communication fabric' of

Bowman.) a software application layer (**Bowman,** C3:48-50; 'Software application layer'

of applicant is equivalent to 'software development and management' of Bowman.) a

data repository. (**Bowman,** C37:46-53; 'Data repository' of applicant is equivalent to

'central design repository' of Bowman.) It would have been obvious to a person having

ordinary skill in the art at the time of applicant's invention to modify the combined

teachings of Fowler and Chappel by having multiple layers incorporated within the

design as taught by Bowman to have a portal layer, a software application layer a data repository.

For the purpose of following standard software design principles which speed development.

Claim 3

Fowler and Chappel do not teach the first and second agents providing graphical user interfaces to the first and second software applications; the first software application being operable to allow a user to design a business solution with user parameters and user-selectable, pre-defined business objects and pre-defined technology objects; the second software application being operable to allow a user to manage the business solution.

Bowman teaches the first and second agents providing graphical user interfaces to the first and second software applications; the first software application being operable to allow a user to design a business solution with user parameters and user-selectable, pre-defined business objects and pre-defined technology objects; the second software application being operable to allow a user to manage the business solution. (**Bowman,** C116:52-57; The 'first agent' and 'second ' agent of applicant is equivalent to 'system software' and 'management systems' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having graphical interfaces as taught by Bowman to have the first and second agents providing graphical

user interfaces to the first and second software applications; the first software application being operable to allow a user to design a business solution with user parameters and user-selectable, pre-defined business objects and pre-defined technology objects; the second software application being operable to allow a user to manage the business solution.

For the purpose of having a user friendly interface with a user to employ the invention.

Claim 5

Fowler and Chappel do not teach a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects.

Bowman teaches an interview module operable to display questions to a user and receive answers from the user to be used by the first software application. (**Bowman,** abstract' 'Interview module' of applicant is illustrated by entering an 'exception' and answers are provided by the 'exception response table' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by being able to input data as taught by Bowman to have a business process engineer application operable to receiving user parameters and design business processes with the pre-defined business process objects.

For the purpose of using a template as a function and being able to input

variables into the template of function is order to produce an outcome.

Claim 6

Fowler and Chappel do not teach a business process engineer application

operable to receiving user parameters and design business processes with the pre-

defined business process objects.

Bowman teaches a business process engineer application operable to receiving

user parameters and design business processes with the pre-defined business process

objects. (**Bowman,** abstract; When the user enters the parameters (equivalent to

'exception' of Bowman) this function is equivalent to a 'business process engineer' of

applicant.) It would have been obvious to a person having ordinary skill in the art at the

time of applicant's invention to modify the combined teachings of Fowler and Chappel

by using input data with predefines functions as taught by Bowman to have a business

process engineer application operable to receiving user parameters and design

business processes with the pre-defined business process objects.

For the purpose of obtaining a result from the predefined business objects.

Claim 7

Fowler and Chappel do not teach solution technology engineer application

operable to receiving user parameters and design technology solutions with the pre-

defined technology objects.

Bowman teaches solution technology engineer application operable to receiving user parameters and design technology solutions with the pre-defined technology objects. (**Bowman,** abstract; 'Solution technology engineer' of applicant is equivalent to responding with the correct 'exception response' that is listed in the 'exception response table' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by using input data with predefined functions as taught by Bowman to have solution technology engineer application operable to receiving user parameters and design technology solutions with the pre-defined technology objects.

For the purpose of obtaining a result from the predefined technology objects.

Claim 8

Fowler and Chappel do not teach stores a plurality of business solutions, the second software application being operable to allow a user to select one of the business solutions.

Bowman teaches stores a plurality of business solutions, the second software application being operable to allow a user to select one of the business solutions. (**Bowman,** C37:46-53; 'Business solutions' of applicant is equivalent to 'application objects' of Bowman. 'User to select' of applicant is equivalent to 'check-in/check-out' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having stored business solutions as taught by Bowman to stores a plurality of

business solutions, the second software application being operable to allow a user to

select one of the business solutions.

For the purpose of outputting the business solutions without the cost of

generating the solution themselves.

Claim 9

Fowler and Chappel do not teach a knowledge base management application

operable to allow a user to manage a knowledge base.

Bowman teaches a knowledge base management application operable to allow a

user to manage a knowledge base. (**Bowman,** C55:59-67; 'Knowledge base

management' of applicant is equivalent to 'document management' of Bowman.) It

would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention to modify the combined teachings of Fowler and Chappel by

having an overall management system as taught by Bowman to have a knowledge base

management application operable to allow a user to manage a knowledge base.

For the purpose of easing the burden of managing the system without being

concerned with the details of managing the system.

Claim 10

Fowler and Chappel do not teach a project management application operable to

allow a user to manage a project from a project repository associated with the data

repository layer.

Bowman teaches a project management application operable to allow a user to

manage a project from a project repository associated with the data repository layer.

(**Bowman,** C149:50-65 and C31:28-33; 'Project management' of applicant is illustrated

by 'how to use project specific application frame work' of Bowman (Bowman does not

give it a specific name.)) It would have been obvious to a person having ordinary skill in

the art at the time of applicant's invention to modify the combined teachings of Fowler

and Chappel by having the management application be able to work with the data

repository layer as taught by Bowman to have a project management application

operable to allow a user to manage a project from a project repository associated with

the data repository layer.

For the purpose of being able to manage all aspects of the invention, the

management application must be able to interact with all layers on the invention.

Claim 11

Fowler and Chappel do not teach an integrated implementation management

application operable to allow a user to manage an integrated implementation from an

implementation repository associated with the data repository layer.

Bowman teaches an integrated implementation management application

operable to allow a user to manage an integrated implementation from an

implementation repository associated with the data repository layer. (**Bowman,** C7:36-

37 and Figure 127; Bowman illustrates the modules of a implementation interface which

enables the user to integrate implementation. (Bowman just does not give it a specific

name.)) It would have been obvious to a person having ordinary skill in the art at the

time of applicant's invention to modify the combined teachings of Fowler and Chappel

by having the management application be able to work with the data repository layer as

taught by Bowman to have an integrated implementation management application

operable to allow a user to manage an integrated implementation from an

implementation repository associated with the data repository layer.

For the purpose of being able to manage all aspects of the invention, the

management application must be able to interact with all layers on the invention.

Claim 12

Fowler and Chappel do not teach a methodology management application

operable to allow a user to manage a methodology from a methodology repository

associated with the data repository layer.

Bowman teaches a methodology management application operable to allow a

user to manage a methodology from a methodology repository associated with the data

repository layer. (**Bowman,** C4:2-4 and Fig. 43) It would have been obvious to a person

having ordinary skill in the art at the time of applicant's invention to modify the combined

teachings of Fowler and Chappel by being able to alter the design of the data repository

layer as taught by Bowman to have a methodology management application operable to

allow a user to manage a methodology from a methodology repository associated with

the data repository layer.

For the purpose of allowing the user to set up an organization design regarding the repository layer.

Claim 13

Fowler and Chappel do not teach a solution landscape management application operable to allow a user to manage a solution landscape from a landscape version repository associated with the data repository layer.

Bowman teaches a solution landscape management application operable to allow a user to manage a solution landscape from a landscape version repository associated with the data repository layer. (**Bowman,** C37:46-53; 'Solution landscape management' of applicant is equivalent to 'version control' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having a solution repository in a organized fashion as taught by Bowman to have a solution landscape management application operable to allow a user to manage a solution landscape from a landscape version repository associated with the data repository layer.

For the purpose of being able to access various solutions with neighboring solutions being closely related, thus reducing search cost.

Claim 14

Fowler and Chappel do not teach a business process analyzer and a control object repository associated with the data repository layer.

Bowman teaches a business process analyzer (**Bowman,** C161:32-41; Bowman illustrates analyzing 'business use case') and a control object repository associated with the data repository layer. (**Bowman,** C37:46-53) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having the business process analyzer and control object repository on the same level as taught by Bowman to have a business process analyzer and a control object repository associated with the data repository layer.

For the purpose of having modules which interact with one another be at the same level as one another to ease communication costs.

Claim 15

Fowler and Chappel do not teach a business process object management application and a technology object management application operable to allow a user to manage business process objects and technology objects.

Bowman teaches a business process object management application and a technology object management application operable to allow a user to manage business process objects and technology objects. (**Bowman,** C48:18-26 and C23:35-39; 'Business process object management' of applicant is equivalent to 'direct manipulation services' of Bowman. 'Technology object management' of applicant is equivalent to 'delivery vehicle reference' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the

combined teachings of Fowler and Chappel by having agents which can manage both business objects and technology objects as taught by Bowman to have a business process object management application and a technology object management application operable to allow a user to manage business process objects and technology objects.

For the purpose of easing the burden of the user by employing agents which can manage both business proves objects and technology objects.

Claim 16

Fowler and Chappel do not teach a technology component identifier and a classification repository associated with the data repository layer.

Bowman teaches a technology component identifier and a classification repository associated with the data repository layer. (**Bowman,** C192:13-25 and C130:51-64; 'Component identifier' of applicant is illustrated in operation 5410 of Bowman. 'Classification repository' of applicant is equivalent to 'partitioned business component' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having both the technology component identifier and the classification repository within the same layer as taught by Bowman to have a technology component identifier and a classification repository associated with the data repository layer.

For the purpose of having two modules which communicate with each other on the same level lowers communication costs.

Claim 17

Fowler and Chappel do not teach stores a plurality of user-selectable solution

determination structures, each solution determination structure having a plurality of

parameters and solution determination procedures.

Bowman teaches stores a plurality of user-selectable solution determination

structures, each solution determination structure having a plurality of parameters and

solution determination procedures. (**Bowman,** C14:34-43; 'Determining structures' of

applicant is equivalent to 'frameworks' of Bowman.) It would have been obvious to a

person having ordinary skill in the art at the time of applicant's invention to modify the

combined teachings of Fowler and Chappel by storing solutions as taught by Bowman

to stores a plurality of user-selectable solution determination structures, each solution

determination structure having a plurality of parameters and solution determination

procedures.

For the purpose of accessing solutions without the cost of generating solutions.

Claim 18

Fowler and Chappel do not teach solution determination procedure comprises

control objects linked to routines.

Bowman teaches each solution determination procedure comprises control

objects linked to routines. (**Bowman,** C20:24-32; 'Solution', 'routines' and 'control

objects' 'meet a specific set of user or application requirements', 'applications' and

'components' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by generating a solution by associating objects to functions as taught by Bowman to have solution determination procedure comprises control objects linked to routines.

For the purpose of generating a solution for the user.

Claim 19

Fowler and Chappel do not teach a solution determination structure instantiation having a user-selectable initiative, business area, business process and business activity.

Bowman teaches stores a solution determination structure instantiation having a user-selectable initiative, business area, business process and business activity. (**Bowman,** C21:52-61; 'Business area ', 'business processes and 'business activity' of applicant is equivalent to 'core business', 'architecture' and 'infrastructure' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by allowing the user to have options of selection as taught by Bowman to have a solution determination structure instantiation having a user-selectable initiative, business area, business process and business activity.

For the purpose of allowing the user to search for solution in a plurality of domains.

Claim 20

Fowler and Chappel do not teach solution determination structure instantiation is linked to a plurality of templates, the templates being linked to pre-defined business process objects and pre-defined technology objects.

Bowman teaches solution determination structure instantiation is linked to a plurality of templates, the templates being linked to pre-defined business process objects and pre-defined technology objects. (**Bowman,** C14:34-41 and C131:22-35; 'Template' of applicant is equivalent to 'template' of Bowman. Bowman equates 'template' as a functioning 'framework') It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having solutions linked to business objects templates and technology templates as taught by Bowman to have solution determination structure instantiation is linked to a plurality of templates, the templates being linked to pre-defined business process objects and pre-defined technology objects.

For the purpose of using templates as a guide for collecting necessary input data.

Claim 21

Fowler and Chappel do not teach templates comprising a solution template, a business object template, a technology object template and a project template.

Bowman teaches templates comprising a solution template (**Bowman,** C15:9-32), a business object template (**Bowman,** C14:52-64), a technology object template (**Bowman,** C13:30-42) and a project template. (**Bowman,** C31:28-33) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having numerous categories of templates as taught by Bowman to have templates comprising a solution template, a business object template, a technology object template and a project template.

For the purpose of template specific requirements for specific solution generation which reduces computation costs.

Claim 22

Fowler and Chappel do not teach a primary work area with active solution variants and inactive solution variants.

Bowman teaches provides a primary work area with active solution variants and inactive solution variants. (**Bowman,** C116:52-57; 'Primary work area' of applicant is equivalent to 'system software' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having a area with both active and inactive solutions possibilities as taught by Bowman to have a primary work area with active solution variants and inactive solution variants.

For the purpose of allowing the user the option of using either active or inactive solution variants.

Claim 23

Fowler and Chappel do not teach a primary work and an alternate work area.

Bowman teaches a primary work and an alternate work area. (**Bowman,** C116:52-57; 'Alternate work area' of applicant is equivalent to 'management system' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by having different levels of work area as taught by Bowman to have a primary work and an alternate work area.

For the purpose of dividing the task into smaller domain if needed for increased efficiency

Claim 24

Fowler and Chappel do not teach an exchange infrastructure operable to allow applications in the application layer to communicate with external applications.

Bowman teaches an exchange infrastructure operable to allow applications in the application layer to communicate with external applications. (**Bowman,** C31:57 through C32:5; 'Exchange infrastructure' of applicant is equivalent to items '1006, 1008 and 1010' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and

Chappel by allowing communication of various layers to external layers as taught by
Bowman to have an exchange infrastructure operable to allow applications in the
application layer to communicate with external applications.

For the purpose of being able to post a solution to an outside layer.

Claim 26

Fowler and Chappel do not teach providing a software application layer and an
exchange infrastructure, the exchange infrastructure allowing applications in the
software application layer to communicate with external applications.

Bowman teaches providing a software application layer and an exchange
infrastructure, the exchange infrastructure allowing applications in the software
application layer to communicate with external applications. (**Bowman,** C31:57 through
C32:5; 'Exchange infrastructure' of applicant is equivalent to items '1006, 1008 and
1010' of Bowman.) It would have been obvious to a person having ordinary skill in the
art at the time of applicant's invention to modify the combined teachings of Fowler and
Chappel by allowing communication with outside applications as taught by Bowman to
have providing a software application layer and an exchange infrastructure, the
exchange infrastructure allowing applications in the software application layer to
communicate with external applications.

For the purpose of being able to post a solution to an outside layer.

Claim 27

Fowler and Chappel do not teach providing a plurality of solution determinations structures.

Bowman teaches providing a plurality of solution determinations structures. (**Bowman,** C14:34-43; 'Determining structures' of applicant is equivalent to 'frameworks' of Bowman.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by providing numerous solutions as taught by Bowman to providing a plurality of solution determinations structures.

For the purpose of giving the option of a plurality of solutions to a user.

Claim 28

Fowler and Chappel do not teach providing a plurality of user-selectable business process templates and user-selectable technology object templates.

Bowman teaches providing a plurality of user-selectable business process templates and user-selectable technology object templates. (**Bowman,** C14:34-41 and C131:22-35, Fig 39; 'Template' of applicant is equivalent to 'template' of Bowman. Bowman equates 'template' as a functioning 'framework'. Figure 39 discloses a user interface.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Fowler and Chappel by providing templates of both business process and technology as taught by Bowman to providing a plurality of user-selectable business process templates and user-selectable technology object templates.

For the purpose of allowing a user to select which business and technology templates to use.

(10) Response to Argument

Section A 112 Rejections

Appellant's argument

The Appellant argues 'the Examiner first improperly limits the breath of the claims by suggesting examples of business solution management systems directed to 'manufacturing processes or solving abstract problems such as an algorithm for solving N-P complete problems.' (page 12 Appeal Brief)

Examiner's response

The Office Action dated 3/26/2008 states the failure of limitation using 'technology objects.' The Examiner then suggested 'manufacturing processes or solving abstract problems such as an algorithm for solving N-P complete problems' as two examples describing two ends of a spectrum in which 'technology objects' can be employed. Since there is no limitation on the breadth of 'technology objects', the Examiner does not know how this is enabled within the specification.

Appellant's argument

The Appellant argues there exists an adequate description of a 'technology solutions.' Appellant states it may be constructed in an 'object oriented concept.' The Appellant continues with the explanation it may be question and answer process of an

object type as parameter objects. Then there are business components of a solution

development effort which may be defined as 'business objects.' And finality, 'technology

components' may be implemented as instances of a 'technology object.' (page 13

Appeal Brief)

Examiner's response

The term 'object oriented concept' is only mentioned once in paragraph 0053.

The use of the word 'concept' within the term describes the core of the problem which is

questioning the nature of the invention. This gives no guidance to the nature of the

invention. Therefore ¶0053 provides no nature of the invention. Appellant also cites ¶¶

0282 and 0288 which also provides no nature of the invention.

Appellant's argument

The Appellant argues 'a technology object management function may include

standard pre-defined and pre-configured bsm technology objects.' The Appellant further

discloses that 'technology objects' may include different categories such as 'generic

components objects', 'generic integration objects', 'solution components objects',

'solution configuration objects' which are used to 'identify general architecture

components such as lightweight directory access protocol, portal content management

and demand planning among other terms.' (page 13 Appeal Brief)

Examiner's response

The Examiner's position, these explanations do not provide the nature of the term 'technology objects' nor are they a clear in their functions or purpose regarding prior are. The Examiner views the Appellant's arguments as concepts supporting concepts.

Appellant's argument

The Appellant argues the domain in which the invention can be employed is supported in Figure 1(page 13 Appeal Brief)

Examiner's response

Figure 1 gives no indication of what is a 'technology object.'

Appellant's argument

The Appellant argues 'the MPEP expressly instructs that the specification need not contain an example if the invention is otherwise disclosed in such a manner that one skilled in the art will be able to practice it without undue amount of experimentation.' (page 14-15 Appeal Brief)

Examiner's response

The Examiner asked for an example not to disclose that the Appellant has not provided one but to look for guidance is in composition, nature and use. The Examiner was looking for a way to avoid the 35 U.S.C. §112 rejection. The Appellant has not provides any example of a 'technology object' and the Examiner has no defined clear explanation of what a 'technology object' is.

Section B. 101 Rejections

Appellant's argument

The Appellant argues 'software comprising instructions stored in a computer readable medium' is statutory subject matter. (page 16 Appeal Brief)

Examiner's response

The Examiner's disagrees with this reasoning and views the Appellant's argument as describing software. Software provides no practical application. Appellant further discloses that the invention can be used as 'a business solution management system' provides no clear practical application.

The courts have also held that a claim may not preempt ideas, laws of nature or natural phenomena. The concern over preemption was expressed as early as 1852. See Le Roy v. Tatham, 55 U.S. (14 How.) 156, 175 (1852) ("A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right."); Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 132, 76 USPQ 280, 282 (1948).

Accordingly, one may not patent every "substantial practical application" of an idea, law of nature or natural phenomena because such a patent "in practical effect would be a patent on the [idea, law of nature or natural phenomena] itself." "Here the "process" claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure-binary conversion. The end use may (1) vary from the operation of a train to verification of drivers' licenses to researching the law books for precedents and (2) be performed through any existing machinery or future-devised machinery or without any apparatus." Gottschalk v. Benson, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

The Courts have found that subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon is not patentable. As the Supreme Court has made clear, " [a]n idea of itself is not patentable," *Rubber-Tip Pencil Co. v. Howard,* 20 U.S. (1 Wall.) 498, 507 (1874); taking several abstract ideas and manipulating them together adds nothing to the basic equation. In re Warmerdam, 31 USPQ2d 1754 (Fed. Cir. 1994).

Appellant's argument

The Appellant argues 'promotes growth and success of a business enterprise' as a business issue. (page 17 Appeal Brief)

Examiner's response

Paragraph 0003 which the Appellant relies on to disclose the practical application of the invention is within the 'Background' section of the application and not directly reflects the invention practical application. It merely supplies background information.

Appellant's argument

The Appellant argues 'Claim 1 recites "software comprising instructions stored in a computer readable medium." Such a "tangible" medium is statutory subject matter.' And thus 'persisting the modified business solution for the subsequent presentation (page 17 Appeal Brief)

Examiner's response

The Examiner views software per se as non-statutory subject matter.

Appellant's argument

The Appellant argues the statement 'promotes growth and success of a business enterprise' as a practical application. (page 17 Appeal Brief)

Examiner's response

As stated before, ¶ 0003 which the Appellant relies on to disclose the practical application of the invention is within the 'Background' section of the application and not directly reflects the invention practical application. It merely supplies background information.

Appellant's argument

The Appellant argues the 'State Street Bank & Trust Co. v. Signature Financial Group Inc.' parallels the invention and thus provides a practical application

Examiner's response

The Examiner disagrees. The practical application in regards to the State Street Bank & Trust Co. was to determine a final price of a stock. This application has no defined practical application and thus can not use the State Street Bank & Trust Co. as a valid argument.

Section C. 102 Rejections

Appelants argument

The Appellant argues Fowler fails to teach or suggest 'prompting the user to select at least one instantiated business process object and one instantiated technology object.' (page 19 Appeal Brief)

Examiner's response

'Predefined business objects' of applicant is equivalent to the 'behavioral feature' of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of Fowler. "User parameters' of applicant is equivalent to 'parameter' of Fowler. (**Fowler, #5,** Figure 1.1, #12)

Appellant's argument

The Appellant argues Fowler fails to teach or suggest 'maintaining and modifying the business solution.'

Examiner's response

'Maintaining' of applicant is equivalent to '...as these objects that are set up and then left alone...' of Fowler. 'Modifying' of applicant is equivalent to '...they are not modified often, and when they are, we can create them again' of Fowler. (**Fowler,** #8)

Section D. 103 Rejections.

Appellant's argument

The Appellant argues Chappell fails to account for the deficiencies in Fowler such as 'business process objects' and 'technology objects.'

Examiner's response

As previously stated, 'Predefined business objects' of applicant is equivalent to the 'behavioral feature' of Fowler. 'Technology objects' of applicant is equivalent to 'Structure feature' of Fowler. "User parameters' of applicant is equivalent to 'parameter' of Fowler. (**Fowler,** #5, Figure 1.1, #12)

Appellant's argument

The Appellant argues Chappel fails to teach 'a first data repository comprising the instantiated user-selectable, pre-defined business objects and a second data repository comprising the instantiated user-selectable, predefined technology objects'

Examiner's response

The Examiner disagrees with the Appellant and views the 'first data repository' of

Appellant equivalent to 'source database' and 'second data repository' of Appellant

equivalent to 'rules database' of Chappel.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Peter Coughlan

/Peter Coughlan/

Examiner, Art Unit 2129

Appeal Conferees:

/David R Vincent/

Supervisory Patent Examiner, Art Unit 2129

/Joseph P. Hirl/

Primary Examiner, Art Unit 2129